

2.2 Primary Route Improvements

I-77 Upgrades

- **Project Recommendation:** It is recommended that I-77 be upgraded from a four-lane freeway to a six-lane freeway throughout Yadkin County. The total cost of this project, including construction and right of way, from the Iredell County line to the Surry County line is \$49,428,000.
- **Transportation Demand:** The construction of this project is needed to improve north-south highway transportation from Cleveland, Ohio to Columbia, South Carolina. Besides being important on a regional level, I-77 provides citizens of Yadkin County access to Virginia, South Carolina, and the Charlotte Metropolitan area. The traffic on I-77 is expected to increase to 46,900 vehicles per day (vpd) in the southern part of the county and 59,000 vpd in the north.
- **Capacity:** The average annual daily traffic (AADT) for all studied corridors was based on the 2002 AADT volumes. Based on historical AADT records, traffic volumes were projected for the future planning year of 2030. The projected average daily traffic volumes along I-77 range from 46,900 vpd to 59,000 vpd. Based on these projected volumes, there would be capacity deficiencies in the northern part of Yadkin County where traffic volumes are higher. This increase in volume is larger due to traffic coming from US 421 and heading north on I-77. The recommended improvement to six lanes will increase the capacity to maintain an adequate level of service for 2030, and beyond.
- **Safety Issues:** The interchange of I-77 with US 421 is listed among the high collision locations within Yadkin County. If no improvements are made to I-77, the resulting increase in congestion will result in the potential for increased collision rates due to high numbers and close proximity of vehicles in the traffic stream. The recommended improvements to I-77 will provide increased capacity, and greater maneuverability, resulting in safer driving conditions.
- **Social Demands/ Economic Development:** This project will improve interstate travel and access from the north-central states of the United States (Michigan, Ohio, etc.) to the southeastern coast of the United States ending in the South Carolina. Improved access to North Carolina should have a positive impact on economic development, and improve automobile transportation.
- **System Linkage:** I-77 is already a part of the nationwide Eisenhower Interstate System. By using I-77 residents of Yadkin County can access cities, such as: Charleston, WV, Cleveland and Akron, Ohio, Charlotte, NC, and Columbia, SC.